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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,982	02/11/2004	David P. Gurney	BCS03463	4523
43471 Motorola, Inc. Law Department 1303 East Algonquin Road 3rd Floor Schaumburg, IL 60196	7590 07/08/2010			
EXAMINER TAYONG, HELENE E				
ART UNIT 2611		PAPER NUMBER		
NOTIFICATION DATE 07/08/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

### Office Action Summary

**Application No.**

10/776,982

**Applicant(s)**

GURNEY ET AL.

**Examiner**

HELENE TAYONG

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6, 8-11, 13, 14, 16, 17, 19-22, 24, 25 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6, 8-10, 16, 17 and 19-21 is/are allowed.
- 6) ☒ Claim(s) 11, 22 and 27 is/are rejected.
- 7) ☒ Claim(s) 13, 14, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/11/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

1. Acknowledgment is made of amendment filed 4/30/10.

Claims 1, 4-15, 18-29 and 32-42 are pending in this application and are considered below.

#### ***Response to Arguments***

2. Applicant's arguments with respect to the rejection of claims 11, 13-14, 22, 24-25 and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Labeledz et al (US 4847869) in view of Rostany et al (US 5970399) have been considered but are moot in view of the new ground(s) of rejection because of amendments.

Applicant's arguments with respect to the rejection of claims 1-4, 6, 8-10, 16, 17, 19-21 are persuasive, rejection withdrawn.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 22 and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Labeledz et al (US 4847869) in view of Rostany et al (US 5970399).

(1) with regards to claims 11 and 22;

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Labeledz et al discloses a method for improving burst (rapid phase acquisition) detection in a digital receiver device (figs. 2A, 2B, 3 and 5A), comprising:

receiving a signal (fig. 3,  $y(t)$ ); a tuner and demodulator (fig. 1, col. 1, lines 65-68) as applied in claim 22;

performing a multiple persistent ( I and Q) burst detection process on said signal ( figs. 2A, 2B, 3 and 5A);

wherein the multiple persistent ( I and Q) detection process further comprises:

estimating a signal energy value over a portion of said signal ( 313 and 315);

comparing said signal energy value to a designated signal energy threshold value( programmable microprocessor) (col.3, lines 35-57 and col. 5, lines 30-66);

estimating large amplitude signal (320,322);

comparing said amplitude signal to a designated threshold value ( 115, col. 3, lines 27-57, col. 5, lines 45-66); and

signaling a valid burst detection (col. 6, lines 6-14) if said signal energy exceeds said designated signal energy threshold value (predetermined threshold) for a first predetermined period of time and said amplitude signal exceeds said designated threshold value for a second predetermined period of time, (fig. 3, 115, col. 6, 1-48-67, col.7, lines 1-11, see fig. 5A).

Labeledz et al discloses all of the subject matter discussed above, but for specifically teaching

(a) estimating a signal carrier to noise plus interference ratio (CIR) value;  
(b) signaling a valid burst detection if said signal energy exceeds said designated signal energy threshold value for a first predetermined period of time and said CIR exceeds said designated CIR threshold value for a second predetermined period of time, wherein said first predetermined period of time and said second predetermined period of time comprise a majority of an expected burst duration"

(i) with regards to item (a) above;

However, Rostany et al in the same endeavor (detection) discloses in (figs. 1, (106),(108), 2,(206), (208), fig. 6, step 613-615), measuring energy and a squelching function that compares the energy measurement signals to a predetermine threshold (col. 4, lines 5-53) and in (fig. 5), a two threshold function is used (col. 6, lines 26-45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the method as taught by Rostany et al in the system of Labeledz et al in a manner as claimed in this application for the benefit of removing interference present in system.

(b) with regards to item (b) above;

However, Rostany et al in the same endeavor (detection) discloses in (figs. 1, (106),(108), 2,(206), (208), fig. 6, step 613-615), measuring energy and a squelching function that compares the energy measurement signals to a

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predetermine threshold (col. 4, lines 5-53) and in (fig. 5), a two threshold function is used (col. 6, lines 26-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to estimate signal energy wherein said first predetermined period of time and said second predetermined period of time comprise a majority of an expected burst duration, since it has been held that the provision of adjusting stability, where need, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

(2) with regards to claim 27;

Labeledz et al further discloses wherein said system comprises a digital receiver (figs. 2A, 2B and f3, col. 3, lines 11-26, col. 5, lines 31-52).

***Allowable Subject Matter***

5. Claims 1-4, 6,8-10,16-17,19-21 allowed.

The following is an examiner's statement of reasons for allowance: The prior art of record Labeledz et al (US 4847869) in view of Rostany et al (US 5970399) do not disclosed performing a lower order detection process including a lower order modulation detection and correlation on a portion of said received signal, wherein said lower order process produces a lower order synchronization word indication result and a lower order synchronization word timing result a sync word search on said signal; performing a higher order detection process

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including a higher order modulation detection and correlation on said portion of said received signal, wherein said higher order detection process produces a higher order synchronization word indication result and a higher order synchronization word timing result, said higher order detection process being performed when said lower order synchronization word indication result is present; and

modifying said synchronization word timing result to be said lower order synchronization word timing result when said higher order synchronization word indication is absent, and to be said higher order synchronization word timing result when said higher order synchronization word indication is present.

6. Claims 13-14, 24 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record Labeled et al (US 4847869) in view of Rostany et al (US 5970399) do not disclosed said signal being initially detected if the estimated signal energy exceeds said first signal energy threshold, and said signal becoming subsequently undetected if the estimated signal energy falls below said second signal energy threshold.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

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preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **HELENE TAYONG** whose telephone number is (571)270-1675. The examiner can normally be reached on Monday-Friday 8:00 am to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Liu Shuwang can be reached on 571-272-3036. The fax



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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helene Tayong/  
Examiner, Art Unit 2611

July 3, 2010

/Shuwang Liu/

Supervisory Patent Examiner, Art Unit 2611